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THE LAW OF CORONERS.[1]

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MR. CHAIRMAN AND GENTLEMEN, — The subject of coroners and coroners' law which we are about to discuss this evening has lately excited a good deal of attention both in England and in this country. The immediate cause of this attention in both countries has been the same in both, the proceedings in recent cases have been of a nature to lead many persons to doubt the propriety of the existing laws and of the procedure under them, and to inquire into the advisability of a change in the constitution and the conduct of the coroner's court.

It is my pleasing duty to place before you briefly the laws on the subject now in force in this Commonwealth, to notice the proceedings and practices that have grown up under them, and thus to open the way for your discussion of the remedies, if there be any, that may seem desirable.

The office of coroner is one of very remote origin. In England it could formerly be held only by "lawful and discreet knights." His functions were originally those of a conservator of the peace, and generally a ministerial deputy of the crown. He took the place of the *shire-reeve* (our present sheriff), or governor of the Count, during his absence or incapacity. Part of his duty was the collection of the revenues; to "inquire of wrecks and of royal fishes, such as sturgeon, whales, and the like;" he took charge of forfeits to the crown of such moving articles — cattle, horses, or wagons — as directly contributed to the death of any person; and finally, he came to represent the crown in criminal cases where a dead body was found and violence or crime was suspected. With an exception hereafter to be noted, the latter duty is the only one with which, in this country, he is now charged, and which at present concerns us. The constitution of his court, the conduct of proceedings before it, and the manner of his appointment are the same now in England as they were in the time of Elizabeth. In this country the

[1] Read before the Department of Health of the American Social Science Association.

[2] The writer desires to acknowledge his indebtedness in the preparation of this paper to the admirable address of Mr. Herschell, Q. C., M. P., delivered before the British Social Science Association, at Liverpool, in October, 1876.

only change has been in the manner of appointment. From time immemorial the coroner has been assisted in his investigation into the cause and manner of a violent death by a jury. Differing from time to time in the number composing it, it was always summoned from the immediate neighborhood of the place where the dead body was found, and still must be "of the county." Formerly the jurors were summoned as witnesses or accusers rather than as judges. Until the fifteenth century the jury themselves were the witnesses and the only witnesses, they being selected with reference to their knowledge of the facts, and no other witnesses being examined and no evidence whatever being offered to them. Though no longer selected for the purpose of obtaining from them the facts in the case, nor at all likely in towns or cities to have any previous knowledge of the facts, they are to this day sworn to return a true inquest according to their knowledge and such evidence as shall be laid before them. With this brief outline of the coroner's historical position, let us now pass to the actual position he occupies under our laws.

Coroners are appointed by the governor and council. They give bond in the sum of five hundred dollars, and are sworn. If on view of a dead body found the coroner deems it necessary to hold an inquest, he does so upon being authorized in writing by the attorney-general, district attorney, mayor, chief of police, or the selectmen of the town in which the body is found. In cases of railroad accident no such authority is necessary. The coroner issues a warrant to some constable, who summons six men of the county as a jury. If six do not appear, the number is completed from the by-standers. No person is allowed to serve on the jury oftener than once in twelve months. The inquest may be secret with the consent of a majority of the jury, and the witnesses kept separate. The testimony of the witnesses is required to be written down by the coroner or by some person at his direction, and signed by the witnesses. The verdict, the written evidence, and all recognizances and examinations taken by the coroner must be returned to the superior court within thirty days. If the jury find that a murder, manslaughter, or assault has been committed on the deceased, the coroner may bind over the witnesses or commit them, and if the person charged with the offense is not in custody the coroner may issue a warrant for his arrest.

Coroners hold their commissions for seven years. Their fees are, for a view, four dollars; for an inquest, five dollars for the first day and four dollars for each subsequent day. Witnesses get the fees allowed in a justice's court. The person writing the testimony gets one dollar and a half per day. The constable for summoning the jury and attending the inquest gets two dollars per day. A surgeon or chemist may be employed by the coroner to aid in the investigation. He receives

what the coroner certifies to be reasonable. The practice is to allow thirty dollars for an autopsy and fifty dollars for a chemical analysis. When no coroner lives in the place any justice of the peace may perform his duties. Property found on or near the dead person is taken charge of by the coroner, who must deliver it to those entitled to its possession.

The district attorney must be notified of an inquest when the coroner thinks a murder or manslaughter has been committed. He may attend and examine and bind over witnesses.

In every county two special coroners may be appointed, who alone can take the sheriff's place. When the sheriff is a party to proceedings, or the office is vacant, these coroners serve process and perform his duties until a new one is appointed. These special coroners give bond "to the satisfaction of the superior court." Coroners are removable by an address of both houses of the legislature to the governor. In case of breaking their bond to the injury of any person, if the execution is not paid in thirty days a proceeding for removal may be begun before the governor and council.

In practice a person desiring an appointment as coroner presents a petition more or less numerously signed, with one or more names of men of presumed respectability upon it; this is handed either to the councilor for the district in which the applicant resides, or to the governor in person. In the latter case the petition is referred to the councilor for the district for his investigation and report. Upon his favorable report the applicant is appointed. Sometimes a verbal application alone is made, and personal representations of friends are quite frequent; indeed, they are the rule.

The *appointment* of certain officers is supposed to be preferable to their *election*, by reason of the independence and the better class of material thus to be secured, since election is a matter of popular favor, of chance, and party ascendancy, and is no guarantee of proper qualification for office, while appointment permits selection for quality and fitness. Practically, it is impossible that the appointing power should be personally acquainted with individuals to be appointed when their number is large; thus the benefits arising from this system within certain limits are liable to fail beyond these. In such cases personal judgment of quality is necessarily supplanted by reliance on the representation of others, and thus the element of risk enters. No amount of care can then obviate all mistakes, and if mistakes occur it is not the fault of the appointing power, but of the law requiring the exercise of discretion beyond its natural bounds. The first thing that attracts attention in the law is that it fixes no limit to the number of coroners that may be appointed, and in practice this attention is justified by the facts.

The following figures will illustrate the outcome of this feature of

the law: London, with its enormous population, has *four* coroners; New York, with a population three times that of Boston, has *four*, with one medical deputy each; Brooklyn, with a population one third to one half greater, has *two;* Philadelphia, New Orleans, and Chicago, *two* each; San Francisco, Baltimore, Washington, and Cincinnati but *one* each, — a total of twenty-four for all these large cities taken together.

Suffolk County, consisting chiefly of Boston, has forty-seven coroners, of which the city of Boston alone has, or had a week ago to-day when I copied the record, forty-three, almost twice as many as all the above-named cities combined!

What results can you reasonably expect from such an unlimited, indiscriminate distribution of office? Will it not naturally tend to deteriorate the quality, and thus lower the tone of the whole body? We might fairly assume that in time no person fit for the office will accept one which is given away to any and every comer. Without here calling in question the personal probity or fitness of any person now holding the office, and without denying that it is still held by many worthy and competent gentlemen, it is not venturing too much, perhaps, to say in general terms that the standard of quality has been lowered. This is recognized and felt most severely by those *in* the office who are qualified and fit for it, but are conscious that the practices of others have brought the office to the verge of disrepute.

Of the forty-three coroners in Boston, thirty are regular physicians and members of the Massachusetts Medical Society, two are registered as members of the Massachusetts "Eclectic Medical Society," seven are what is known as "other physicians," while four are non-professional gentlemen. Of these last, one is an auctioneer, another an insurance agent and broker, a third vends patent medicines, while the fourth figures simply as "notary public and coroner."

Now, how important is it to have men of superior character to fill the office? What does its possession entrust them with?

You have in the coroner an officer armed practically with the utmost powers of the law. He decides in the first place, upon his discretion, whether an inquest be necessary or not; it is obvious how large are the opportunities for corruption in this direction: that for a man whose cupidity or possibly culpability and fear are stronger than his honor and integrity, it would not be difficult to thwart justice and close the door to all judicial investigation of a crime by corruptly declaring an inquest unnecessary, and even aiding in the removal of suspicion and the concealment of the evidences and traces by authorizing a speedy burial. But if he may thus on the one hand shield the guilty and endanger the public safety, on the other the opportunities for a man prompted by malice or vindictiveness or the desire of cheap notoriety are enough, truly, to make us tremble. With full judicial powers of examination and com-

mitment, with his chosen constable selecting his own jury, with supreme control of the investigation, which with the consent of part of his jury he may make secret, with the selection of his medical witness, and the power to summon and hear or omit and exclude whomsoever he will, uncontrolled by superior authority and responsible practically to no one for his action, he may bring ruin upon a life, or forever cloud and embitter it, throwing suspicion on the character of the living and blackening the memory of the dead; he may oppress and harass a stricken household without cause and without justification, — in one word, he may make an inquest in the worst sense of the term an *Inquisition*.

Will you entrust such powers to a man of any but the highest *character*, — whose integrity is above reproach and above suspicion? This you cannot be sure of by unlimited appointment; and such an office as I have described should surely not be given to one whose past life and character are such as to fail to inspire confidence in his disposition to resist dishonoring proposals or the belief that he is free from fouler motives.

I propose, therefore, in the first place, a reduction in the number of coroners.

As a matter of fact the inquests in Boston, notwithstanding the large number of coroners, are mostly held by some six of them. The constant practice of other cities proves that a smaller number will suffice for all wants.

By such reduction, besides preventing a great danger and present evil, you gain corresponding positive good: 1st. Each individual of a smaller number of appointees may be personally known by the appointing power, as *are* all the judges appointed in this State. 2d. You increase the dignity of the office and awaken that jealous public attention which always watches the appointee to a trust of dignity and importance and scans his qualifications. Whether there should be one chief with deputies, or several with coördinate powers, is an open question. It seems to me there is more likelihood of even excellence by making several co-equal appointments.

A few words as to the practice in regard to the jury. The constable being chosen by the coroner is not likely, as human nature goes, to exert himself unnecessarily, or to conflict with his views or desires in selecting the jurors whom it is his duty to summon. Except in cases where public attention has been pointedly aroused, the class of men chosen to act as jurors is proverbially inferior in moral standing and intelligence. The books teem with stories of their ludicrous and absurd verdicts. The hangers-on of the constable's office are generally in requisition. Previous to 1860, indeed, the business of professional juryman had grown to such extensive proportions that it was found necessary to enact a provision that no man should serve oftener than once in

twelve months. But even now a deficiency in the number of jurymen may be made up from "the by-standers."

The jury are to give a verdict. In practice I do not believe the jury do this once in ten times. The coroner suggests and even has written out beforehand, in appropriate language, the verdict that his judgment approves. This is submitted to the jury, and in most cases accepted by them without dissent. I once had the honor of officiating as foreman of such a jury. After the evidence had been heard, to the utter surprise of one of us, the coroner, who was standing at that moment in another part of the room, said: "This is all the evidence, gentlemen; the clerk has drawn up a verdict in accordance with the facts, which he will now read to you." And really that clerk had found our verdict before we had. But then he was an experienced clerk.

The usefulness of the jury, when judged by its work, is not apparent. Nurtured in tradition and deriving most of their store from its sources, lawyers are naturally attached to what is old; but for one I do not favor circuitous modes of action where direct ones answer the same end. Now here is an opportunity too good to be lost for straightening a very roundabout road.

The coroner notifies a constable, the constable summons a jury, the jury are sworn, the body is viewed, the testimony is heard, the verdict is returned, — and what do you do with it? Absolutely *nothing!* We get together a number of men, we inform them of certain facts and ask them to draw a conclusion from those facts, and for what purpose? Their verdict is not conclusive, it is not evidence, and is not even used at the subsequent trial; the statements there made by the witnesses are not evidence, the prisoner is not bound over upon it, nor until after a rehearing of the whole matter in the criminal court. Well, then, to what end is all this needless machinery and expense? To furnish an item for the evening press? Is there any service to the State? Is there any additional safety to the individual? I apprehend not; and we shall see farther on that there *is* a material and grave danger. The safeguard of the jury is interposed between the interests of the two, upon the trial; the accused has all the protection of that mighty bulwark of liberty there, and the coroner's jury does not add to it one particle. Whatever the verdict, the courts proceed without and independently of it in this country.

In England, the coroner, when a verdict accuses any one, still does bind him over to appear at the next assizes; but there is instituted a parallel proceeding by indictment in the regular courts, upon which alone he is tried. And if the courts, finding no cause to indict, discharge the prisoner, he is nevertheless bound to appear at the assizes to which the coroner's action referred him, and be there discharged. This extent of solemn and meaningless mockery does not obtain with us

We simply do *nothing* with the coroner's verdict, without the pretense of doing *something*.

Here the coroner practically never binds over a suspected person, he being almost invariably in custody before the coroner knows anything about the matter. So that the coroner and his court, judicially considered, are a meaningless, but, as we have seen, by no means harmless anomaly. They serve no purpose, no results flow from their work, and they cause danger, evil, and expense.

Upon these grounds, therefore, I advocate the abolition of this useless body.

Having before determined the question of the character necessary for a coroner, let us turn our attention to his qualifications. One important fact must be kept steadily in view: THE SOLE PURPOSE OF THE CORONER'S INQUEST IS THE DETECTION OF CRIME. With a death unaccompanied by circumstances of suspicion the coroner has no concern. When such suspicion exists his functions are twofold. One is to determine with certainty whether the death has resulted from natural causes or from violence. By the term violence I here mean not only physical force, but poison and all means of death not in the ordinary course of nature. The other is to determine, if it be found to be a case of violence, how that violence was caused, and whether it constitutes a crime or not. One is a question of medical investigation, the other a question of legal determination. One is answered by a physical examination, the other by an inquiry into external facts, and the application of the laws to those facts. One is essentially the function of a physician, the other essentially the function of a lawyer.

I am not going to offend your ears by saying that the office is a judicial and not a medical one. It is composite, being neither judicial nor medical, because it is both, — a nondescript. Nor am I going to assert that it should be held by a lawyer. I only ask you to accompany me into an examination of the functions of the office as just indicated; these once clearly understood, the much-disputed question will decide itself. Let us only clearly understand the duties involved in its performance, and the respective relations of medicine and law to them, and all dispute is at an end.

What takes place when an inquest is held? In the first place the coroner decides whether it be necessary to hold one. This is clearly a matter of medical science, as the appearance and inspection of the body must chiefly determine it. Does he decide one necessary, the next thing is to convoke a jury to examine into the facts relating to the death. This is a matter of hearing testimony from witnesses; and the very statement of this function shows it to be clearly legal. One part of the facts to be heard by the jury is the condition and appearances of the body, and the scientific deduction from these; this again is evidently

only a medical field; one part of the jury's duty is to make up a verdict upon the facts ascertained by evidence, and the law applicable to those facts as laid down by the coroner; this again is a province clearly legal. Whether a given death result from natural causes or not, so far as the body indicates, the physician's examination is competent, and alone competent to decide; whether, the fact of violence being established by such examination, that violence constitutes a crime, and if so, what crime, the testimony of witnesses to external facts and the law applied to those facts alone can determine. In technical language, whether a homicide has been committed or not is a medical question; whether that homicide be justifiable homicide, or manslaughter, or murder, is a legal question.

Briefly, then, the physical examination is the physician's business; the passing upon the admissibility of evidence and the laying down of the law is the lawyer's. It would be as absurd and out of place for the latter to undertake to pass upon the very intricate questions of anatomy, physiology, pathology, and chemistry involved in the one, as it would be for the former to attempt to decide the equally delicate questions of law including considerations of the competency and validity of evidence, of the limits of self-defense, and of the nature and degree of crimes, which constitute the other. No lawyer is competent to answer the one, and no physician is qualified to answer the other; and a man understanding fully the nature and scope of his own profession ought to shrink from assuming the dangerous responsibility of practicing another. Now, is it possible for one man to unite in his person the knowledge and qualities requisite for both? Apart from human limitations I need point out only that science is armed with a microscope, while justice is blind; that the mind and temper of a physical investigator and witness are not the mind and temper of a judicial officer, who never comes in personal contact with the facts, but receiving them from others calmly balances them and passes judgment; that a witness is and must always be to some extent a partisan, and that it is as improper to permit the medical witness to take the other evidence, as to permit any other witness to act also as judge.

I am aware that when inquests are held and an autopsy is made, the coroner generally has some other physician to do it and be the medical witness; but in that case, the balance of the functions being wholly judicial, it is not apparent why their discharge should not be entrusted to the usual agencies employed in the discharge of judicial offices, nor why a medical gentleman should be chosen to do a lawyer's work. The judicial functions do not properly begin until crime is suspected; and when it is, the physician's office, save as a witness, ceases.

These considerations have brought me to the conclusion that the duties now performed by the coroner should be imposed upon, and the

powers he now exercises should be vested in two distinct persons, one a medical man, the other a lawyer.

I do not propose the subjection of the one to the other, but that each should perform the duties pertaining to his office, and proper to his profession. The rooted inconsistency of joining these opposite duties has constituted the most formidable obstacle to progress. I propose, therefore, now to dissever this incongruous union.

Two medical officers should suffice for Boston. In the country the persons now serving as coroners would in many instances be the proper persons to act as medical officers. The medical officer should go to the spot where a dead body is found, and should decide in the first place whether or not the death resulted from natural causes, from an inspection and if necessary autopsy of the body, before making which he should call a number of persons to note the position and appearance of the body, which he will disturb by the autopsy. He should make a written statement of his examination, — for the sake of greater accuracy and subsequent certainty, — and if he should find that death resulted from other than natural causes, he should at once notify the judicial officer, who should thereupon proceed with the further investigation. Policemen and detectives could then, as they do now, "work up" the case, that is, gather all information to be acquired; persons from the neighborhood would then as now interest themselves in assisting this search for facts, and thus there would be no want of witnesses. That useful executive officer, the policeman, who is almost always in charge before the coroner is notified and arrives, should be kept there to see that everything remains *in statu quo*.[1]

Of course you must make the judicial officer independent of the medical, so that in cases where the latter deems no judicial inquiry necessary, but such information reaches the former as to make him think otherwise, he may order the same or some other medical officer to make an autopsy, and may proceed with the investigation. The duties entrusted to these officers being of the greatest importance, we are undoubtedly all agreed that they must both be men of the highest character. I count upon your unanimous assent when I say further that the duties to be performed by the medical man require for their proper performance more than average skill and special training. The location and appearance of wounds, whether so situated as possibly to be self-inflicted; whether the condition and nature of wounds or abrasions indicate their infliction before or after death; the position of the body with reference to apertures in the building; the condition of the internal organs; the age and sex indicated by remains, — all these, and the

[1] The need of a public prosecutor — not to conduct proceedings already begun, but to put the machinery of the law in operation and see to the gathering of evidence — is becoming more and more clearly recognized; at present this duty devolves upon no one, the policemen and detectives performing it chiefly of their own motion.

almost infinite diversity of anatomical, physiological, and chemical details and questions that may arise in different cases require special experience and minute and accurate knowledge.

Most of the unfortunate blunders known as judicial murders have resulted from the inexperience or ignorance of the medical men engaged in the case either as witnesses or coroners undertaking to decide medical questions. Sometimes the consequences have been harmless, comparatively, and the stories are amusing; but too often they are tragical, and have a fatal termination. A few of these may serve to enforce this point.

Marc Antoine Calas was the son of John Calas, a merchant of Toulouse, aged seventy years, of great probity, and a Protestant. This son was twenty-eight years of age, of a robust habit, but of a melancholy turn of mind. He was a student of law, and becoming irritated at the difficulties he experienced (in consequence of not being a Catholic) concerning his license, he resolved to hang himself. This he executed by fastening the cord to a billet of wood placed on the folding-doors which led from his father's shop to his store-room. Two hours after he was found lifeless. The parents, unfortunately, removed the cord from the body, and never exhibited it to show in what manner his death was accomplished. The people carried the body to the town-house, where it was the next day examined by two medical men, who without viewing the cord or the place where death had been consummated declared that he had been strangled. On the strength of this the father was condemned and broken on the wheel. He expired with protestations of his innocence.

Reflection came when it was too late. It was recollected that the son had been of a melancholy turn of mind, that his clothes were not in the least ruffled, that a *single* mark only was found from the cord, which indicated suicide by suspension, and in addition to these facts that the dress proper for the dead was found lying on the counter. Voltaire espoused the cause of the injured family, and attracted the eyes of all Europe to this judicial murder. The council of state reversed the decree and vindicated the father's memory.

On board a ship coming from Calcutta there had been a disturbance, and one of the sailors was said to have received a blow in the side from a handspike. Four months after this, and when he had been in port several days and was often on shore, he one day ate a large dinner and drank freely. He was taken ill and a physician was sent for, but he died before any aid could be administered. An examination took place; the stomach was highly inflamed and still retained the food of the previous day. The liver was much diseased and there were numerous abscesses in it. The gall-bladder was natural. The fifth and sixth ribs were found to have been fractured so near the sternum as to occa-

sion a slight depression of that bone, but union was so complete as to give no indication of the age of the fractures. The heart and lungs were sound.

On these appearances the medical examiner gave it as his opinion that there was a probability that the *fracture of the ribs had produced the diseased appearance of the liver*, and that the influence of the latter had extended to the stomach. The persons accused of injuring the deceased were on this testimony committed by a justice of the peace to take their trial for murder. They were, however, soon brought up again on a writ of habeas corpus before two judges of the supreme court, and in the mean time the professor of anatomy in Harvard University had made a further examination of the disinterred body. The stomach was found to contain a quart of undigested food, mixed with gin. Its internal surface was highly inflamed, particularly at the cardiac orifice. There were four or five ounces of fluid in the pericardium. In the liver were several tubercles, one of which had suppurated, but it had no connection with the fractured ribs. Indeed, the "liver was so situated that it could not have been wounded by the fractured ribs without penetrating the diaphragm and the lower part of the lungs." Yet these parts were sound. The blood-vessels of the heart were highly congested, the ventricles contained much serum, and there was a general dropsical effusion throughout the body. No other opinion could be given than that it was a case of general disease, induced by intemperance, and that the immediate cause of death was the overloaded state of the stomach. The prisoners were in consequence discharged.

In 1800, at the Devon assizes, Thomas Bowerman was presented to the grand jury for the murder of a bastard child by pushing an awl into its head. The body had been disinterred by order of the coroner, and on the inquest a hole was found on the side of the head near the ear, agreeably to the testimony of a witness. An Exeter surgeon, hearing of this case, attended the grand jury. He examined the skull, and found that the supposed hole was the natural perforation of a vein, and in proof of this pointed out a covering of enamel round the opening, which could not have been there if it had been made by force. In further illustration he exhibited several skulls all having similar perforations, and each hole having a small channel, and the rim or edge smooth and polished.

Mr. Alcock, some years ago, stated in a public lecture at London that he had known a fracture of the base of the skull produced by the awkward and violent tearing of the upper portion during autopsy, the saw not penetrating deep enough to divide the bones, and this was mistaken by the inexperienced operator for fracture of the skull producing death. Being a criminal case, it might have led to melancholy consequences had not the error been detected by an observer.

Another case is related where one brother was supposed to have murdered another, and the crime was after many years thought to be brought to light by the accidental discovery of the bones. Dr. Perfect examined them before the coroner's jury and found that they were the bones of an aged female.

Amusing instances of gross ignorance happen sometimes. In a case of supposed abortion, before a coroner's jury in London, in 1829, a medical practitioner testified that the fullness of the breasts attendant on impregnation was the consequence of powerful medicines; that the natural opening of ducts about the os uteri were punctures, and finally, that the gall-bladder was filled with *florid* bile. For all of which the coroner's jury voted him their thanks.

Of course in many cases it is the public interest that suffers from such official incapacity. Dr. Guy relates that he was summoned by a coroner in a case where a woman previously in good health was seized with violent vomiting in the night and died the next morning. The suspicion of poison was strongly confirmed by the swollen and crimson appearance of the body. A bloody, frothy serum issued from the mouth. She had complained of a burning sensation at the stomach, and had expressed the opinion before death that she had been poisoned. Dr. Guy refused to give any opinion as to the cause of death without the opportunity of a post-mortem examination. The coroner, who was not a medical man in this case, being in great haste to hold another inquest in another part of the city, and seeing the bloody serum issuing from the mouth, remarked to the jury that it was entirely unnecessary to open the body, that there was no doubt whatever that the woman died from rupturing a blood-vessel, and advised them to return a verdict to that effect, although another physician who was present testified his belief that the woman died from the effects of poison. The verdict of the jury was in accordance with the coroner's recommendation. Being dissatisfied with such a flagrant dereliction of duty, Dr. Guy made known the facts of the case to the mayor, who caused the body to be disinterred, when it was satisfactorily proved that death had been caused by arsenic. Officers were dispatched in pursuit of the husband, but without success, as he had fled from the city, and thus in all probability a murderer escaped from justice.

So far we have considered the medical officer. As to the judicial officer, he should be a man at least of the standing and ability of the district and municipal court judges. And in the language of that admirable clause in our constitution, in order that these officers "may be as free, impartial, and independent as the lot of humanity will admit," they should hold their offices as long as they behave themselves well, and should have honorable salaries, ascertained and established by standing laws. This will rid us beyond peradventure of the unseemly rivalry

and race for fees which now occasionally occurs, and which cannot but tend to provoke scandal and bring into disrepute an important part of our judicial system.

I come now to an important portion of my subject. Upon what officer should this judicial function devolve? Should he be the person who subsequently has charge of the conduct of the prosecution, — I am speaking of cases where violence has been committed, for in none other is the judicial inquiry necessary, — or should he be a justice of some court?

You are aware, perhaps, that in France and in other countries of Europe the office of coroner is unknown. The prosecuting officer of the government — corresponding to our district attorney — proceeds to the place where a dead body is found, makes the investigation, summons witnesses, and takes their testimony in writing, which is read to and signed by them. He has power to prevent egress from the premises or departure from the neighborhood when necessary, to seize articles and papers supposed to be connected with the crime. He is authorized to take with him one or two persons deemed by their art or profession capable of appreciating the nature and circumstances of the crime.

In case a violent death is the subject of inquiry, or one where violence is suspected, he is assisted by one or two health officers, who are always physicians, who report on the causes of death and the condition of the body. He is the person charged with the subsequent prosecution of the crime as well.[1]

However efficient this may be found in a system like that of France, it is hardly in harmony with ours. We cannot afford to leave out of account in our legislation the weaknesses and foibles of human nature. I have before adverted to a fact familiar to all who have much acquaintance with the administration of criminal law, that the tendency of a prosecutor is to become a partisan. Every district attorney, every police officer, every detective, every person habitually engaged in the prosecution of crime comes in time to be less and less impressed with the truth of the proposition that every man must be presumed innocent until proved guilty. In him is represented the state, and the state is a party to the case; a judge must be the free and unbiased repository of the interests of both.

I reject, therefore, as unfeasible the proposition that the district attorney, having the later charge of the case, should also take the earlier evidence in a judicial capacity. If you say that his being allowed to act thus would give him better possession of the facts of the case for his subsequent use, I reply he may be present, but not in a judicial capacity. Let us beware how we make possible the union of prosecutor

[1] Teulet, Les Codes. 1860.

and judge, and create men more eager to convict than to do impartial justice.

Being judicial, the duty should devolve upon a judge. I now propose, therefore, to let the coroner's court be merged in the criminal courts of first instance, called in the country district courts, in the cities police or municipal courts, and to transfer the judicial duties hitherto performed by the coroner to the judges of these courts. Being the first step in a judicial proceeding, all subsequent steps of which are taken in the courts, nothing can be more appropriate or logical than this transfer. Thus, and thus only, can you secure its proper place in a responsible and orderly judicial system.

Nor is the proposed change as great as at first sight it appears. These courts perform now the identical duties performed by the coroner so far as he acts judicially, only they do it over again after the coroner instead of doing it once and for all. The judges of these same courts now do decide on their discretion whether a person accused shall be bound over for trial or discharged. So you are placing no more power in their hands than they now have. You risk nothing by the change and you get rid of a great danger.

Let me call your attention to another view of the subject With anxious care and infinite solicitude we guard the life entrusted to our hands in a criminal trial. We employ the most august and elevated tribunal to preside over it, the highest law officer of the State to conduct it; we allow the accused free choice of learned and able counsel to see to it that all the safeguards of the law surround and protect him. All this we do as well to do justice to the State as to abstain from doing injustice to the individual. Yet we entrust the first step in this proceeding to random and irresponsible hands. And yet the first step is not infrequently the most important of all. "Incompetent hands may destroy, untrained minds may overlook, the information which is readily obtainable at first, but once neglected is irreparably lost." Consider the possibilities of imminent peril to endangered innocence, of hopeless loss to the security of the public here involved.

In the country, where the district courts discharge the duties of courts of first instance, this change would involve no increase of judges or of expenditure. Their business does not occupy more than a few hours a day at the most. In Boston the municipal court performs these duties. There are three judges, and a special justice who sits in the absence of either of the others, in the city court. The suburbs have each a municipal court, with one justice and two special justices. If we have not enough judges, one more at the most will suffice for Boston proper. For the district courts no increase or change will be required.

There were held in Boston during the year ending April 30, 1876, one hundred and ten inquests and four hundred and twenty-three views,

costing the city the sum of $10,769.74. By comparison with previous years it will be seen that the amount is steadily increasing. This expenditure included for medical examinations $1790, for chemists $170. This with the $4000 or more paid to jurors, constables, and scribes would give you enough to pay good salaries to two competent medical officers, and when you consider that no new judge is needed you have another $3500 at your disposal. The number of views and inquests just mentioned is so largely in excess of the published facts as to give ground for the supposition that practices may now prevail which under a competent and responsible medical officer would not occur, and thus the number would perhaps be materially reduced.

Now the coroner and jury must view the body, and the oath must be administered to the jury *super visum corporis*, and this, moreover, to quote an old English author, in order that the jury may have the benefit of the coroner's remarks upon the appearances which the body exhibits.

As the proposed plan does away with the jury and gives the physical examination entirely into the hands of the medical officer, no good reason is apparent why the judicial hearing should be held on the spot, though there is probably no valid objection to that course.

I have repeatedly referred to the want of responsibility of the existing coroner. We, as attorneys, are responsible to the courts; ministers are amenable to the discipline of their conferences; there is no public servant who is not subject to some higher power for correction and removal. The coroner gives a bond for five hundred dollars, — less than a constable; there is no penalty enacted for his misconduct in office, and the only way to remove him is by an address of both houses of the legislature to the governor!

The power of the coroner to serve process and exercise other functions of the sheriff under certain circumstances is a relic of the remote past, when he was the sheriff's substitute and deputy, and has now no ground or justification for being continued. These powers should at once be transferred to the sheriff's deputies or to the sheriffs of adjoining counties.

To recapitulate briefly. The changes proposed are: —

(1.) To abolish the office of coroner as now constituted. The abolition of the coroner's jury will follow.

(2.) To divide its duties between (*a*) medical officers, to make the examination and testify to its results, (*b*) judicial officers, to receive the testimony and apply the law.

(3.) To have the medical officers appointed by the governor and council, during good behavior, and removable by the same power for cause shown. In Suffolk County there should be two, and they should receive fixed salaries. In the other counties they should be more nu-

merous (owing to the greater distances to be traveled), and should be paid by fees for the services rendered.

(4.) To have the judicial duties performed by the justices of the criminal courts of first instance, as a part of a regular judicial proceedure.

RECENT PROGRESS IN ANATOMY.

BY THOMAS DWIGHT, M. D.

Coloring Agents in Microscopy. — During the past year eosine has attracted much attention, but has hardly come up to the expectations that were held out to us. Dr. Julius Dreschfeld[1] uses an aqueous solution of one part of eosine in from a thousand to fifteen hundred parts of water. Sections are left in this for a minute or a minute and a half and then washed in faintly acidulated water. He claims that the eosine makes the sections transparent and brings out the differences of tissue. On this account he particularly recommends it for the spinal cord.

Dr. Wissozky[2] has the merit of having made the only really valuable discovery concerning this agent. He has found that eosine has a special affinity for hæmaglobin. It stains deeply mammalian red blood corpuscles and the bodies of those of amphibians, leaving their nuclei colorless. He found on extracting with water the hæmaglobin from the red corpuscles that the eosine had no effect on them, and consequently concludes that it is the hæmaglobin that is stained. By subjecting the blood corpuscles of the frog first to eosine and then to hæmatoxiline he has succeeded in coloring the bodies with the former and the nuclei with the latter. White corpuscles are not affected. Wissozky believes that this property of eosine will be of much value in certain investigations or, for instance, in the development of the blood and blood-vessels. In a note he states that in connective tissue cells only the protoplasm and in epithelium only the intercellular substance (*Kittsubstanz*) is distinctly colored. These last statements are entirely at variance with our experience: we have found eosine an intense and rapid-staining agent but without elective affinity (except perhaps for hæmaglobin), and in no other respect equal to logwood.

Drs. Norris and Shakespeare[3] have made public a method of double staining which apparently gives very striking results and is certainly worthy of further trial. Two fluids a red and a blue one are made as follows: —

Red.		Blue.	
Carmine	3 ss.	Indigo-carmine	3 ij.[4]
Borax	3 ij.	Borax	3 ij.
Distilled water	f 3 iv.	Distilled water	3 iv.

[1] Centralblatt der medicinischen Wissenschaften, 1876, No. 40.

[2] Archiv für mikroskopische Anatomie, Bd. xiii., Heft 3.

[3] American Journal of the Medical Sciences. January, 1877.

[4] Indigo-carmine is the sulphindigotate of potassium.

The sections to be stained must be washed till they are free from any color due to the hardening agent, and it is well to dip them into alcohol before laying them in a mixture of equal parts of the red and the blue fluids. They remain there from fifteen to twenty minutes, and are then transferred for a somewhat shorter time to a saturated solution of oxalic acid, which in turn must be completely removed by water. We have not space to give an account of the way in which this process affects the elements of the various organs, and regret that the authors do not appear to have been able to deduce a general rule of the way in which it works. Sometimes there is a mixture of red and blue, that is, purple; some parts are green, and most are either blue or red. The fibres of connective tissue and the ground substance of cartilage are blue. Cells as a rule appear red with red nuclei, but sometimes the former are blue and the latter red. As an example we will quote the description of the lungs stained in this manner: "The capillaries with their purple-tinted walls and bright-red nuclei are distended with blood which had its usual apple-green hue. The large flat cells of the alveoli show in their cell-contents a faint blue which does not at all mask the carmine of the nucleus. The arteries and veins are stained as usual. The cell-contents of the columnar epithelium of the bronchi and trachea stain greenish-blue, while the nucleus is always red and the ciliæ are tinged faint blue-green."

Dr. Klein [1] has applied to the study of the normal structure of the cornea a modification of Stricker's method of investigating inflammatory changes. He proceeds as follows: "The centre of the cornea of a young kitten that had been chloralized was touched with the tip of a stick of caustic potash; after twenty-four hours the surface of the cornea was gently rubbed with lunar caustic once or twice, and excised after half an hour and placed in water acidulated with acetic acid. In one or two days the organ had swollen up into a thick gelatinous body, from which thin lamellæ were stripped off by means of pointed forceps and finally mounted in glycerine. The lamellæ obtained from the anterior half of the cornea, except those on the very surface, proved most instructive." The centre of the cornea is necessarily much injured, and the useful portion is toward the periphery. The matrix is of a yellowish-brown color, the bodies of the corpuscles are brownish-purple, and the nuclei clear. The outlines of the lymph spaces containing the corpuscles are very clearly shown. It may be objected that this method can hardly show the parts in their normal condition, and it would be desirable to ascertain whether equally good results may not be obtained by some more humane procedure.

Sexual Differences in the Skull.[2] — Mantegazza has shown by obser-

[1] Quarterly Journal of Microscopical Science. January, 1877.

[2] This account of observations by Italian authors is taken from an article in the Revue d'Anthropologie, tome v., Numero 4, 1876.

vations on two hundred and seven skulls from the neighborhood of Bologna that, contrary to the common opinion, the female skull is shorter than that of the male. Further investigations of skulls of various nations will, however, be necessary before this can be accepted as a general truth.

M. Morselli has studied with great care the weight of the skull and of the lower jaw in the two sexes, with the interesting result of discovering an index of the sex which is more valuable than any of those in use: to wit, the proportion of the weight of the jaw to that of the skull. The author weighed one hundred and seventy-two skulls, the sex of which could be certainly determined, one hundred being male and seventy-two female. The weight varied from three hundred and thirteen grammes to nine hundred and ten, the average being five hundred and sixty-six. The average weight of the male was 602.9 grammes and that of the female 516.5. The latter were to the former as 85.7: 100. Weisbach, it may be mentioned, makes the ratio 87.2, while Dureau's results, 85.8, are practically identical with Morselli's. Our author next weighed the inferior maxillæ, and found the total average 73.3 grammes, the average of the male ones being 80 and that of the female 63; the latter being to the former as 78.5: 100. The relation of the weight of the jaw to that of the head varies considerably, but it is constantly larger in proportion in man than in woman. The average in the former being 13.7% and that of the latter 12.6%. This difference the author maintains is the most constant and important sexual distinction of the skull. A point worthy of notice which is incidentally touched upon is that as a rule the cranial capacity increases with the weight of the skull.

Muscles. — Professor Krause [1] has shown that the sterno-cleido-mastoid may be said to be composed of four muscles more or less closely united. The advantage of this view lies in its furnishing a key to some anomalies in the human subject and to the arrangement in some mammalia, peculiarities which depend on the absence or uncommon development of one or more of these four bellies. The nomenclature is sufficiently simple: the sternal portion is divided into the sterno-mastoid and the sterno-occipital, and the clavicular portion into the cleido-mastoid and cleido-occipital. Of these divisions the sterno-mastoid, sterno-occipital, and cleido-occipital are superficial, lying in the order named, from before backward, the first of them being the largest part of the muscle. The cleido-mastoid arises farthest back, and lying deeper than the others crosses them obliquely to be inserted into the mastoid process. It is the second division in point of size. The spinal accessory nerve emerges from the muscle between the two clavicular portions, and enters it either by piercing the cleido-mastoid portion or by passing between it and the sterno-mastoid.

[1] Centralblatt für die medicinischen Wissenschaften, No 25, 1876.

Zuckerkandl [1] in an article on the inferior cervical (the subclavian) triangle describes a new muscle, the scalenus minimus, which he has found twenty-two times in a series of sixty subjects. It varies greatly both in size and in its origin. It may be half as large as the scalenus anticus and it may be almost imperceptible. It arises from the transverse process of the sixth and seventh cervical vertebræ, or only from the latter, or only from the first rib near the tubercle, which last is its most constant origin. It is inserted into the upper surface of the pleura which it makes tense. When absent its place is taken by two bands of fibrous tissue.

(To be continued.)

ZIEMSSEN'S CYCLOPÆDIA.[2]

THE present volume of this great work will, we believe, prove an unusually attractive one. It is devoted chiefly to the chilopoietic system, but it includes also the pharynx and larynx. The first paper, by Wendt, is an interesting monograph on the morbid processes, so rebellious to treatment, that infect the pharynx. It begins with the anatomy of the region, and describes the third or pharyngeal tonsil situated in the median line under the basilar process. "The cytogenic, richly follicular layer which, without interruption, covers the vault and a great portion of the lateral wall, and which composes the stroma of the mucous membrane, is, as a rule, more considerably developed in this place, and elevated into a thick cushion which may reach the thickness of six millimetres or more."

The longest article in the book is that of Leube on the stomach and intestines. He also begins with the anatomy, and gives two wood-cuts of Luschka's admirable plates, showing the true position of the stomach. Another cut gives an excellent view of the usual shape and position of the stomach when morbidly dilated. This affection is discussed with considerable care, as is also its diagnosis by percussion. This, however, is rarely sufficient alone, and the following experiment is recommended: "If a healthy man, while fasting, be made to drink water (a quart), a strip of dullness makes its appearance *above* the umbilicus; if the strip of dullness appear below this point, dilatation of the stomach very probably exists, and the diagnosis becomes more certain if the stomach-tube be used, and fluid be introduced and withdrawn at discretion. If with this manipulation a dull strip regularly form below the umbilicus and disappear every time the fluid is withdrawn, dilatation of the stomach may be diagnosticated with a considerable degree of certainty. *Finally, all doubt is removed if the stomach-tube can be felt below the horizontal line drawn from the anterior superior spinous process of the ilium from one side to the other.*" This brings to our notice the most striking point in Leube's treatise, his advocacy of

[1] Zeitschrift für Anatomie und Entwickelungsgeschichte, Bd. ii. Vide Centralblatt. No. 48, 1877.

[2] *Cyclopædia of the Practice of Medicine.* Edited by Dr. H. VON ZIEMSSEN. Vol. VII. Diseases of the Chilopoietic System. New York: William Wood & Co. 1876.

the stomach-pump, not only in dilated but in inflamed stomachs. It empties the organ, as he claims, quickly and completely, with less injury to it than is produced by emetics, and permits the immediate application and subsequent withdrawal of appropriate washes. In spite of these advantages the method will hardly come into favor in private practice.

A very interesting part of the volume is that by Lichtenstein on constrictions, occlusions, and displacements of the intestines. There are many cuts to help the description of the mechanism by which various twists and the like are produced. The explanation of the very perplexing displacement known as retro-peritoneal hernia, or hernia duodeno-jejunalis, is the clearest we have met with.

From the consideration of the intestinal tract we naturally pass to that of its *fauna*, intestinal parasites, which are treated by Heller, and last of all comes Von Ziemssen on the larynx. There are many more illustrations in this volume than any of the others, which it resembles in the excellence of the type and paper. We regret to notice an instance of vulgarity in the translation, the first, by the way, which has attracted our attention; it is on page 21: "Many persons are not *posted* concerning the glosso-pharyngeal nerve."

PROFESSOR CHARLES E. BUCKINGHAM.

Dr. Charles E. Buckingham died at his residence in this city on Monday, February 19th, at the age of nearly fifty-six years. Graduating as Bachelor of Arts at Harvard College in 1840, and as Doctor of Medicine in 1844, he entered at once upon the practice of his profession, and without other advantages than his own ability and industry soon laid the foundations of a steadily increasing reputation. From the first he enjoyed in an unusual degree the respect and affection of his patients, who appreciated his frank sincerity and unselfish devotion to their welfare. His relations with his professional brethren were marked by the independence and candor with which he formed and stated his own opinions, but also by his respectful consideration for those of others, and by a generous regard for men who were his juniors.

Appreciation of Dr. Buckingham's professional abilities was shown by his appointment as one of the surgeons and afterwards as one of the consulting physicians of the City Hospital, and by his election as adjunct professor of the theory and practice of medicine, and in 1868 as professor of obstetrics and medical jurisprudence, at Harvard College.

As a teacher he was conspicuous for earnest and independent opinions, and for the concise and practical character of his instruction. He was one of the earliest and warmest advocates for raising the standard of medical education, and to have been able to coöperate in Harvard's successful effort in this direction was to him a source of high satisfaction. The same desire for progress induced him to become one of the managers of this journal, and to contribute liberally of his means towards increasing its value and usefulness.

Heroic to the last, he continued his efforts to fulfill his public and private duties, especially those of his professorship, and his generous attendance on

some who had been his patients in better times, whom he would not desert in their adversity, after he felt the heavy burden of illness laid upon himself, was characteristic.

A great concourse of those who had loved and confided in him, and of his professional brethren, with the president and medical faculty of Harvard College, and officials of the Masonic and Odd Fellows' fraternities, in which the deceased had held high positions, filled the church in which the funeral services were held. Representatives of the Massachusetts Medical Society, Suffolk District Medical Society, medical faculty of Harvard College, Obstetrical Society, and of the staff of the Boston City Hospital, united in rendering a last tribute of respect to their eminent colleague.

TYNDALL'S LATE EXPERIMENTS.

Our readers may remember the discussion between Professors Tyndall and Bastian which followed the interesting experiments of the former with reference to the question of spontaneous generation. The solutions tested at that time were, after boiling, exposed in test-tubes to the atmosphere of an air-tight box under certain conditions, which we described in the Journal a year ago. These conditions were sharply criticised by Bastian. In view of this discussion and also of certain investigations which have since been made pointing to the possibility of spontaneous generation, Tyndall undertook during the autumn a vast series of fresh experiments, the results of which are embodied in a lecture delivered at the Royal Institution on January 19th, and entitled A Combat with an Infective Atmosphere. The first solutions used contained a quantity of ordinary mushrooms, which after boiling were placed in the test-tubes as before. In a few days the fluid was swarming with animal life. The same results followed the use of solutions of cucumber and beet root. The atmosphere of the institution was blamed for this failure. We notice, however, that the boiling was limited to five minutes, although it has been shown by Jeffries Wyman that bacteria were not destroyed until after *six hours'* boiling, solutions treated in this way never failing to remain clear for years. We are surprised that this fact has not been formally recognized by these observers. The next experiments of Tyndall were tried on the roof of the building with like results. A new chamber was tried, and turnip infusion was used, but in all cases the verdict was in favor of spontaneous generation. Again he tried a different mode of experiment: he filled tubes and heated them in oil to 230°, and in another case the heating was performed by means of calcined wire, which had been brought to a white heat by means of galvanism; yet in these cases also, in the experimenter's words, "all gave way and swarmed with life." He then, as an almost final experiment, took last year's tubes, the contents of which had remained pure from the beginning; he placed them under the same conditions as those which had failed, and, singular to tell, he found that these tubes soon swarmed with organic life.

He was satisfied that his method was at fault, and a careful examination disclosed the fact that air was introduced by the pipette which filled the tubes

situated in the air-chamber. This air was filled with the germs of hay used in considerable quantity in the laboratory. On removing to a purer atmosphere, and conducting his experiments with fresh apparatus carefully disinfected, no trace of organic life was discovered. The mode adopted of filling the tubes was perfectly novel. It was done by means of an apparatus known to chemists as a "separation funnel," and was so well accomplished that not a single bubble of air was introduced. The test-tubes, when submitted to a beam of electric light, exhibited themselves as perfectly pure, — all save one; and that, which had become muddy, was shown to have a pin-hole perforation. These tubes, which were some weeks under experiment, proved, according to Professor Tyndall, the truth of his views, and the existence of the accidentally injured and therefore muddy tube seemed more convincing than a volume of argument.

Doubtless, had Tyndall followed the rules laid down by Wyman, "an infective atmosphere" would offer no obstacle to the success of his experiments.

MEDICAL NOTES.

— In noticing the fact that the medical journals of this country urge upon physicians the adoption of the metric system in prescriptions, *The Lancet* considers it somewhat singular that no attempt has yet been made to introduce it into England.

— Savannah had, it was thought, a population last summer of thirty-two thousand; ten thousand left during the yellow-fever epidemic, and there were about twelve hundred deaths from the disease.

— Dr. Fischer, in the *Schweitzer Correspondenz-Blatt*, vi. 15, 1876, records the history of a puerperal case in which an application of the ice-bag caused gangrene of the skin of the abdomen underneath. The history in brief is as follows: After birth of twins the mother suffered profuse hæmorrhage, which, in spite of kneading the uterus, injections of cold water and vinegar, water and liquor ferri sesquichloridi, and scratching of the posterior cervical wall with the finger, was several times repeated. In the mean time the ice-bag was applied and left on twenty-four hours, after which the gangrene was noticed to begin. The emptiness of the capillaries of the skin primarily induced by the bleeding was regarded as the cause of the bad effect of the ice-bag.

— Dr. Tillessen, in the *Deutsche medicinische Wochenschrift*, Nos. 46 and 47, 1876, speaks of the method of treating tænia in the Greifswald medical clinic. It consists essentially in clearing out the intestine with castor-oil and enemata, followed by the exhibition of liquids containing substances supposed to be distasteful to the parasite, such as herring brine, and so forth. In addition, a considerable amount of water is given, which is supposed to distend the tænia and separate it from the intestinal wall. The increased weight of the parasite together with the peristaltic action of the intestine suffices to remove the worm. Several cases are reported, and in each the head was brought away.

— Dr. Edgar Holden, of Newark, reports, in a recent number of the *New York Medical Record*, a discovery in physical diagnosis. He calls his appara-

tus a "*resonator.*" It consists of a soft-rubber tube with metallic end-pieces, and is best described in the author's own words. "Material, soft rubber, one sixteenth of an inch in thickness; internal diameter, one half inch; length, seventeen and three quarters inches. Distal end-piece of thin brass, three quarters of an inch in internal diameter, one fortieth of an inch in thickness, and one and a half inches long. Proximal end-piece (mouth-piece), of wood or metal. Same external diameter, and same internal *at its extremities*, but narrowed in its middle to five sixteenths of an inch, and one and seven eighths inches long. The mouth-piece of a trumpet would doubtless be better." A rushing noise is produced at the extremity of the tube when one makes forced inspiration or expiration through it. "If the patient be made to respire through the tube, the ear of the physician being applied to the chest, and particularly in the supra-scapular space, this rushing sound is transmitted with clear, resonant volume. Disease, however slight, exaggerates the sound, alters the pitch, or changes it in proportion to the solidity of the conducting tissues." It is recommended to hold the free end away from the examiner so as to avoid distracting the attention, and to close the free ear with the hand. "A singularly magnified character is given to the respiratory murmurs, and the stethoscope is unnecessary." Five cases are briefly given, and the author sums up as follows: "It intensifies the sounds of vesicular dilatation, whether in a normal or morbid state. It intensifies the tubular sounds which, to the unassisted ear, are sometimes partially drowned by the neighboring healthy murmurs, and it exaggerates to painful hoarseness the evidences of air in cavities."

— Lasinski, in a recent exchange, highly recommends insufflation of the following powder in whooping-cough: —

℞ Quiniæ sulph.	grammes 1.0	grs. 15.+
Acidi salicylici	gramme 2.0	grs. 30.+
Sacch. albi		
Natr. bicarb.	āā gramme .6	grs. 7.5+ M.

He uses the powder morning and evening, and makes it last ten days, that is, nearly one grain of quinine and two of salicylic acid are used in each insufflation. He confesses that children make resistance, but claims that the results are so favorable that it is worth while to persist. Distinct action of the medicines appears at latest eight days after commencement of their use, and is shown by a quantitative or qualitative diminution of the attacks. The experience of the author in twenty cases has been that a complete arrest of the whooping-cough takes place between eight and thirty days; adults and older children were more amenable to treatment than quite young children. His method of procedure with children is to have them held in the lap of an assistant while a tongue spatula armed with a blow-pipe carrying the powder is inserted; during one of the deep inspirations which follow crying and gagging the operator blows the powder down. Care is taken to depress the base of the tongue well and to direct the end of the blow-pipe behind the epiglottis.

— We learn from *The Medical Record* that a bill has been introduced into the Assembly of New York for the creation of a State Board of Health. It provides for the appointment of one physician from the State Medical Society, and one from the State Homœopathic Medical Society. The other members of

the board are to be the attorney-general of the State, the surgeon-general, the state engineer, the superintendent of public works, and the superintendent of state-prisons. The *Record* states that the bill is evidently a partisan measure in the interests of homœopathy, — although it is specious in its appointments and purposes, — and it calls upon the members of the profession to exert themselves for its defeat.

— The Paris *Gazette hebdomadaire* of the last week of December mentions a supposed case of bisexual hermaphrodism heretofore unpublished in France. The individual was born in 1824, and was named Catherine Hohmann. At the age of twelve years the genitals and mammæ were developed; at seventeen this person became a mistress, and so lived for several years; at nineteen, and until the fortieth year, menstruation regularly occurred. Upon its cessation the genital organs approached the masculine type, the individual displayed the dress of the male, and married a young American girl. The penis at this time was five centimetres (about two inches) long, arched downwards, was attached by two loose folds of tissue, was not perforated, and resembled in form and dimensions a largely-developed clitoris. A very dilatable urethra opened on the inferior surface of the penis at its base. Under this was a fissure opening in the median line, terminating still lower in a cul-de-sac, and answering to a rudimentary vulva. Under the penis also was a bifid scrotum, in the right side of which was a well-developed testicle, and in its left a soft and lobular tumor, which might be regarded as a rudimentary or atrophied testicle. The individual was first examined in 1866 by Von Scanzoni, in Würzburg, and the last examination was in 1874 by Mundé, of New York. About ten years ago Professor Schultze, of Jena, found the following anatomical relations: An urethra, or rather an urethro-genitary canal, with a depth of seven centimetres (nearly three inches), leading directly to the bladder, and very dilatable; it presented near the vesical end an ampulla-shaped enlargement fifteen millimetres long, which pouch led into a rudimentary uterus. Rectal examination found to the left of this rudiment of a uterus a cylindrical tumor two centimetres long, which was attached to the uterus by a membranous expansion not unlike a large ligament. This second tumor, movable, cylindrical, and attached in this way to the uterus, suggested the possibility of its being an ovary. Such was the opinion of Schultze, which was confirmed by Olshausen, who also examined the individual several months later. Apart from a full development of mammæ and the absence of hair on the face this individual had an exterior of the masculine type. The larynx, thorax, and pelvis presented the characters of the masculine sex. Schultze's examination coincided with that of Scanzoni, and with those made later by Virchow and Mundé. The physiological observations are curious enough: here is an individual who for twenty years carried on in a regular way the functions of woman, as to menstruation and copulation, bearing at the same time nearly complete anatomical parts of the male without their function; upon the cessation of the female functions the individual was equally able to accomplish coitus, after the style of the male, followed by ejaculation. Several years ago M. Odin published a similar case; this, the *Gazette* remarks, is the second example of supposed bisexual hermaphrodism.

— The death of Johann Christian Poggendorf, of Berlin, occurred January 25th. He was born in Hamburg, December 29, 1796, and distinguished himself early in life in physics. His experiments in galvanism have especial scientific value. He is best known in Europe through the *Annalen der Physik*, of which he has been the head for many years. In 1834 he was made professor in Berlin, and in 1838 a member of the Berlin Academy of Sciences.

— The Society of Physicians of Thüringen, Germany, has founded a life insurance society for the purpose of support of their families after their death.

BOSTON CITY HOSPITAL.

REPORTED BY GEORGE W. GAY, M. D.

SURGICAL CASES OF DR. CHEEVER.

Hyaline Myxoma of Cheek; Fourth Operation; Removal; Recovery. — Hattie S., aged twenty-two years, single, first noticed a soft, painless tumor in her left cheek about five years ago. An operation for its destruction was performed in 1872, again in December, 1874, and the third time in February, 1876. All of these operations were performed upon the inside of the cheek, and consisted of incisions, gouging, cauterizing, etc. The disease reappeared a few months later, and Dr. Cheever advised that more radical measures be taken by attacking the growth from the outside.

October 6, 1876. The patient was etherized and placed in the operating chair. On exposing the tumor it was found to extend upwards and backwards into the zygomatic and temporal fossæ, necessitating the removal of a portion of the zygomatic process, and section of the lower jaw three fourths of an inch in front of the angle. The ramus of this bone was raised, and the growth was found to be attached to the upper part of the greater wing of the sphenoid, from which it was removed with a bone scraper. It also extended downwards and inwards near the pharynx. After a long and careful dissection the whole of the diseased portion was removed. The facial nerve and internal maxillary artery were unavoidably wounded, but the hæmorrhage was not excessive.

The tumor was precisely like that found at the previous operations. It was soft and lobulated, with a thin sac which was easily ruptured, giving exit to a glairy, gelatinous substance peculiar to the more succulent variety of myxomas. There was no capsule, and the mass of lobules extended into the soft tissues in all directions, infiltrating them as it were. The cavity of the mouth was not opened. The fragments of the jaw were wired together, the wound was swabbed out with a solution of perchloride of iron, and closed with sutures.

The patient rallied well from the operation, and improved for six days, when she had an attack of secondary hæmorrhage, which was controlled by pressure. It recurred a week later, and was stopped by injecting ice water into the wound. There was no farther trouble. The wire was removed from the jaw in two months. The wound was healed in eleven weeks, and the patient was discharged well.

Four months after the operation the patient came to the hospital. The wound was well closed, the teeth were in perfect apposition, and the mouth could be opened three quarters of an inch. There was firm union of the jaw, with no necrosis nor deformity. Paralysis of the left orbicularis oculi muscle had disappeared, she being able to close the eye promptly. Her mouth was a little drawn to the right side. There was no reappearance of the tumor.

Time alone will show whether this disease will return. Unfortunately, it belongs to the softest variety of myxomas, which are very prone to recurrence. It would be difficult to do a more thoroughly radical operation for its removal than was the last one.

Traumatic Aneurism; Compression; Recovery. — The patient was a large, powerful butcher who, in crawling through a broken window, received a deep, lacerated wound just below and to the outer side of the tuberosity of the tibia. Thirteen days after the injury he was admitted to the hospital with secondary hæmorrhage.

Ether having been administered, Dr. Cheever enlarged the wound, and found a soft, pulsating tumor, two inches in diameter, from which hæmorrhage was going on. Efforts were made to secure the bleeding points with ligatures, but owing to the softened state of the tissues they were not successful. The wound was then packed with a compress wet with a solution of ferric alum, and firm pressure was applied by means of a bandage extending from the toes to the groin. The limb was placed upon a ham-splint and elevated on pillows.

At the end of five days the compress was removed. The tumor had disappeared, leaving a wound filled with healthy granulations. The patient has steadily improved under simple treatment, and is now almost well.

Glandular Tumor of Neck; Removal; Recovery. — A boy, eleven years old, presented himself at the hospital with a glandular tumor in the left side of the neck, which was as large as a duck's egg, and had been growing two years. It was firm, lobulated, and fairly movable, although a portion extended forward beneath the sterno-mastoid muscle. The patient was etherized on January 12th, and the growth was removed by Dr. Cheever. The sterno-mastoid was divided, and the deeper glands dissected from the sheath of the carotid artery. The external jugular vein was cut and both ends were tied. Fifteen ligatures were applied to control the hæmorrhage. The ends of the sterno-mastoid were secured in apposition by a wire suture, and the wound was closed in the ordinary manner. It did admirably. The wire suture came away in sixteen days, and the muscle was so firmly united that it stood out as prominently as its fellow when put upon the stretch. The boy was well in three weeks.

LETTER FROM WASHINGTON.

Messrs. Editors, — The important events now transpiring in congress have drawn to our city a large increase in the population, which is very noticeable in the crowds which throng the streets. This has not been the work of a few days, but a steady gain has been noticed throughout the winter, and it must be confessed that the character of the increase is not in every respect a

desirable one. It has brought with it a large number of women of questionable virtue and of women with unquestionably no virtue at all; the negro population does not seem to be augmented, but the number of door-to-door beggars is greater than was ever known here before. There are more negro beggars, but as a class they form a small proportion of the whole. On those upon whom they think they have some claim there is but little hesitation in pressing their claims, but they seem to possess a certain self-respect which prevents their calling upon strangers. It is curious to note how they have dropped the word "master" (or "massa") in their mode of address and substituted for it one not so complimentary to those who know them best, that of "boss," a term formerly confined to overseers, etc. Our street corners are filled with loafing white men of the laboring class out of work, and all through the severe winter there have been no means save private charity of relieving the sick and destitute poor, the hospitals and two dispensaries excepted, which have done more than their share; but a large class which depends upon the services of ward or district physicians has been left without the right of calling upon them for the want of funds. These physicians, however, have met the emergency as best they could by giving their services gratis, but it is at best a poor consolation to take one's time to visit such persons and then to find that there is no means with which to purchase remedies. Congress has, however, in spite of its absorbing occupation, found time to pass a bill providing twenty thousand dollars for the relief of the poor. Notwithstanding these circumstances so favorable to the spread of disease, the city has been favored in its general health. Small-pox in isolated cases has cropped out here and there. Diphtheria has manifested itself in mild cases, and scarlet fever has prevailed quite extensively, but in a mild form, as the bills of mortality readily show. The prompt and ready action of the Board of Health in handling such cases when they come to their knowledge has undoubtedly much to do with these results. Whatever criticisms may be admissible concerning the board itself, this much must at least be conceded. Their action in such cases is sometimes very objectionable to those directly concerned, but is evidently due in the main to the obtrusiveness and officiousness of persons in their employ.

Our medical society, recognizing the importance of the subject and the necessity for prompt action, has petitioned congress to appropriate funds sufficient for the publication of the subject catalogue now being prepared under the direction of Dr. Billings. This is but following the example of the American Medical Association, and cannot be too generally considered and followed by other societies. "What they think of it at home" is a strong incentive to many congressmen. In the mean time Dr. Woodward is pressing the completion of the second part of the medical volume of the Medical and Surgical History of the War of the Rebellion, in preparation for the press, but we understand with no expectation that this congress can be concerned in its publication. Dr. Billings returned from his trip to Europe some weeks since, and is quite enthusiastic over his reception and experience, the cream of which will probably be detailed shortly, before the Johns Hopkins University. He has succeeded in securing valuable additions to the library of the surgeon-general's office, and seems to have brought back with him practical and useful

ideas of the workings of all the prominent universities and hospitals of Great Britain, France, and Germany, having been brought into direct contact with most of the working men connected with these institutions.

The reference in the foregoing paragraph to public documents of great value to medical men leads us to introduce the subject of public documents generally. There probably has never been a time when, under the control of the government, so many and such valuable public documents have been issued of interest to the scientific man, subjects it is true not always directly bearing upon medicine, but of great importance to the same in their application to collateral subjects; and how to secure their proper distribution has become an important question to the profession. There is no law which governs this satisfactorily. All these documents are printed under the direction of the government printer, and may be obtained from him on application, by purchase, ten per cent. being added to the actual cost. Why ten per cent. is not explained. But this application must be made before the book passes through the press; its cost can only be approximated at that time, and some of these documents although printed under his direction are not wholly under his control, the plates for illustration, etc., being prepared in another office. Add to this that the public printer himself, from the short notice given him by the authorities, is not always able to send a notification properly in advance, and we see a condition of things which by suitable management could be greatly improved. What is the present disposition of these works? No sooner are they distributed than they are to be found in the second-hand bookstores for sale, and any book published by the government can be bought at such places within certain limits of time. Members of congress are entitled to a limited number of copies, some of which they never see, but turn over to their clerks, messengers, or whoever asks for them. Of course there are exceptions to this; some take pains to send their copies to proper and suitable recipients, but these are notable exceptions. All public documents do not come within this category; those issued from the offices of the surgeon-generals of the army and navy have been, if everything be taken into consideration, quite liberally distributed, yet many more private libraries would undoubtedly be enriched by them could they be obtained by purchase at a reasonable rate. The Smithsonian Institution some time since adopted this plan, and furnishes what it terms a check list of its publications, or in other words a price list, for which it will send them free by mail, and in this list are to be found many valuable contributions to anatomy, physiology, chemistry, microscopy, physics, etc. The Bureau of Education is very liberal in its mode of distribution, and the recent work on libraries published under the direction of General Eaton is receiving marked attention as an agreeable surprise. In addition to these we have works under the head of explorations and surveys, directed by Hayden, Wheeler, and Clarence King, each conducting a distinct series. These are exhaustive treatises upon the botany, zoölogy, ethnology, meteorology, etc., etc., of large tracts of our western country, admirably illustrated, and treating of sections which sooner or later must be populated by our patients. Another work might be introduced here, Walker's Statistical Atlas, a valuable and comprehensive series of illustrations by variously colored maps, showing the contrast in various sec-

tions of this country as to population, sex, cultivation of the soil with its products, influences of disease, mortality, education and illiteracy, birth-rates, etc., etc. All of these latter works have now to be picked up in second-hand bookstores or obtained by personal influence through the courtesy of some member of congress.

To control the practice of medicine in the District there is at present a bill before congress to recognize the necessity of a diploma, or in lieu thereof fifteen years' practice. This bill was presented early in the present session, but seems to have passed into obscurity, at least for the present. As it does not seem to have excited the attention of those who keep themselves posted in professional matters before congress, it has probably been pocketed, to use an expressive term familiar to congressional habitués.

The Medical Society has now for the past three years been publishing its transactions quarterly. Its committee of publication have obtained permission to extend the scope of the present form, and to introduce extraneous matter for which they alone are responsible; this is a sort of apology for journalism, but after all, when societies publish their transactions in such a regular form, why not introduce with them paragraphic medical matters of general interest, with book notices and advertisements, instead of having such a multiplicity of ephemeral medical literature?

One of our well-established physicians of considerable surgical ability has become involved in a suit for malpractice, a case of fracture of the leg with consequent deformity. The damages are set at six thousand dollars. The case has not yet been called into court, and its merits and demerits are not known publicly; but the gentleman has the sympathy of his professional brethren in advance, both on account of his own standing and the necessary annoyance which always accompanies such cases.

The Columbia Hospital for Women is obtaining an unenviable notoriety by means of editorials in a weekly paper here, — the *Capital*. These articles seemed to be infused with a spirit in itself not above criticism; they attack directly the surgeon in charge, but if heeded are at the same time undermining the foundations of the hospital itself. I have frequently, on previous occasions, expressed myself plainly and distinctly with regard to the management of the hospital in question, but such appeals through the newspapers to the general public must tend to create a spirit of hostility and prejudice which will eventually thwart the ends to be attained, and require a long and thorough system of reasoning and example to restore lost confidence. The articles in question are based upon the fact that in 1875 a board of consulting and advisory physicians was appointed, the appointments to which were well made so far as the men themselves were concerned. In response to what they understood to be their privilege and duty, they suggested among other things the abolition of the salary of two thousand dollars per annum which was paid to the surgeon-in-chief; as a consequence their duties were limited, by a vote of the board of directors, by the passage of a regulation restricting, except in cases of emergency, the visiting of, examining of, or prescribing for, all patients to the surgeon-in-chief alone, unless by his express direction. We have just learned that the advisory staff has resigned in a body.

WASHINGTON, *February* 8, 1877.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 17, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228	410	19.79	27.46
Philadelphia	850,856	258	15.78	22.88
Brooklyn .	527,830	206	20.29	24.31
Chicago . .	420,000	153	18.94	20.41
Boston . .	363,940	148	21.14	23.39
Providence	103,000	29	14.64	18.34
Worcester .	52,977	19	18.65	22.00
Lowell . .	53,678	20	19.37	22.21
Cambridge	51,572	10	10.08	20.54
Fall River	50,370	11	11.35	22.04
Lawrence .	37,626	18	24.85	23.32
Lynn . .	33,524	12	18.61	21.37
Springfield.	32,976	9	14.19	19.69
Salem . .	26,739	11	21.39	23.57

Boston Society for Medical Observation. — The next regular meeting of the society will be held on Monday evening next, at its rooms, 36 Temple Place, at eight o'clock. Dr. Hay will report Some Cases of Glaucoma.

Books and Pamphlets Received. — Public Health Papers. No. 1. On the Relations of Health Boards and other Sanitary Organizations with Civic Authorities. By Ely McClellan, M. D., Surgeon U. S. Army. An Address delivered before the Board of Health of Georgia, January 8, 1877.

The Tonic Treatment of Syphilis. By E. L. Keyes, A. M., M. D. New York: D. Appleton & Co. 1877. Pp. 83. 8vo. (For sale by A. Williams & Co.)

Transactions of the New York Pathological Society, founded in 1844. Volume I., based on the Proceedings for the Year 1875, and largely supplemented from the Records of 1844 to 1872. John C. Peters, M. D., Editor. New York: William Wood & Co. 1876. Pp. 272. 8vo. (For sale by A. Williams & Co.)

Transactions of the Twenty-Sixth Anniversary Meeting of the Illinois State Medical Society, held in the City of Urbana, May 16, 17, and 18, 1876. Chicago. 1876.

Illustrations of Clinical Surgery, consisting of Plates, Photographs, Wood-Cuts, Diagrams, etc., illustrating Surgical Diseases, etc., with Descriptive Letterpress. By Jonathan Hutchinson, F. R. C. S. [London]. Fasciculus VI. Vaccination, Syphilis. Philadelphia: Lindsay & Blakiston. (For sale by A. Williams & Co.)

Atlas of Skin Diseases, consisting of a Series of Colored Illustrations, together with Descriptive Text and Notes upon Treatment. By Tilbury Fox, M. D., F. R. C. P., Physician to the Department for Skin Diseases in University College Hospital [London]. Parts 11, 12, 13, 14. Philadelphia: Lindsay and Blakiston. 1876. (For sale by A. Williams & Co.)